CSREES LOGIC MODEL for New Mexico Highlands University FRRRE Project

SITUATION Lack of Underrepresented Minorities (UM) in local and national Natural Resource Management (NRM). High failure rate of UM in introductory STEM course at NMHU. Low retention and graduation rates of UM in STEM related programs of study.

NMHU recently funded to establish an outreach program for UM in STEM.

Partnerships available with local and State entities to create experiential learning in NRM.

INPUTS

What we invest:

Sufficient time and commitment from two knowledgeable faculty to manage project.

Volunteer STEM faculty mentors to support students.

Banner financial and data management system for greater accountability and project management.

Support from NMHU's Office of Research and Sponsored Projects and the Business Office to maintain effective accountability/

An experienced, external evaluator and proven instrumentation to document, analyze evaluate, and provide systematic communication and feedback to the project.

Activities Recruitment: Outreach initiative drives, follow-up with students and parents. face-to-face meetings with students, family & school counselor days at NMHU.

Retention: Collaborate with NMHU's ARMAS Institute to monitor and assess project students' progress, coordinate with academic coaches, tutors and peer mentors: Establish ongoing communication systems with students; Collaborate on website with ARMAS; Establish mentor profiles and links for student: Offer seminars and career development skills: Provide incentives.

Experiential Learning: Collaborate with local/State agencies for internships and field-trips; Provide incentive student participation.

stipends/scholarship:

Participation High school, community college. NMHU undergraduate students, parents and counselors

OUTPUTS

Project "participant' students

ARMAS Institute staff

State and local forest and natural resource professional mentors

STEM faculty on scholarship selection

State and local forest and NRM agencies and entities.

An increase in well-3% to 5% increase trained professionals per vear of student will impact the farms enrollments in NRM. and ranches of NM forestry and environmental and the nation with knowledge in geology. environmental geology oriented Improvement in toward water student grades. sustainability, retention increase

Knowledge

surface and ground

aceguia legal water

rights, and natural

water hydrology,

20-23 students mentored yearly

Graduation of two

Minimum of two

present and/or

publish their

research.

interns per year who

OUTCOMES -- IMPACT

Actions

geologic hazards. undergraduate & two graduates in Technically competent forest NRM, environmental and NRM's who geology and/or understand the forestry. ecological,

diverse lands of NM. Support-USDA Strategic Goals and objectives.

economic, legal and

underpinnings of the

traditional

Contribute to NMHU's long term goals for STEM awareness. outreach, and student retention.

By 2012: • 12% increase in enrollment by UM.

50% reduction in failure rate of project UM in core "gatekeeper" courses

Conditions

80% of project UM pass basic "gatekeeper" courses with a C+ or higher to 80%.

· 100% increase in UM undergraduates and graduates degrees.

 Increase in professional employments in agriculture and natural resources

ASSUMPTIONS

Premises are based on detailed analysis of: Data accumulated from NMHU faculty interviews and administration on effectiveness and quality of project; reports on student performance, retention and graduation rates; review of the literature on effective undergraduate support services; and interviews with local and State NRM agencies and entities.

EXTERNAL FACTORS

A summary of the variables and related impact of the project on students, the region and nation as a result of the project activities.